

**ecology and environment, inc.**

223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415

*International Specialists in the Environmental Sciences*

DATE: October 7, 1980  
TO: W. Goode  
FROM: Jerome D. Oskvarek, Ann Weaver, and April Richards  
SUBJECT: Ohio/TDD# F5-8009-5, #50, (Pits, Ponds, and Lagoon)  
Zircoa/Solon

On October 2, 1980, the authors conducted an on site inspection of the subject site. The site had a lagoon for the settling of calcium silicate sludge, and two sand filters to dry the sludge from the lagoon. The site has hydrofluoric acid and hydrochloric tanks for storage of production materials. These tanks have no dikes around them but the company has contingency plans to contain any leaks. The apparent seriousness of problem is none to very low, and the OEPA should continue its monitoring of the site for its NPDES permit.

Send copy of inspection report to: Garth Austin  
Zircoa  
31501 Solon Rd.  
Solon, Ohio 44139

JDO,AW,AR/ct

US EPA RECORDS CENTER REGION 5



424596



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International Specialists in the Environmental Sciences

C4 0097947097

... fac report  
No Federal action  
Needed at this time.  
ALTHOUGH OEPA could periodically  
inspect the facility  
R Karl

DATE: October 7, 1980

TO: W. Goode

FROM: Jerome D. Oskvarek, Ann Weaver, and April Richards

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JDO,AW,AR/ct

CORNING GLASS LKS  
ZIRCOA PROD  
31501 Solon Road  
Solon Ohio



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT

REGION 12 SITE NUMBER (to be assigned by HQ)

GENERAL INSTRUCTIONS: Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition (Section II). File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME ZIRCOA B. STREET (or other identifier) 31501 SOLON  
C. CITY SOLON D. STATE OHIO E. ZIP CODE 44139 F. COUNTY NAME CUYAHOGA

G. SITE OPERATOR INFORMATION

1. NAME ZIRCOA 2. TELEPHONE NUMBER  
3. STREET 31501 SOLON 4. CITY SOLON 5. STATE OHIO 6. ZIP CODE 44139

H. REALTY OWNER INFORMATION (if different from operator of site)

1. NAME 2. TELEPHONE NUMBER  
3. CITY 4. STATE 5. ZIP CODE

I. SITE DESCRIPTION

MANUFACTURES REFRACTORY MATERIALS

J. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE

II. TENTATIVE DISPOSITION (complete this section last)

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.) B. APPARENT SERIOUSNESS OF PROBLEM  
☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☒ 4. NONE & Very Low

C. PREPARER INFORMATION

1. NAME Jerome D. Oskvane 2. TELEPHONE NUMBER 312-663-9415 3. DATE (mo., day, & yr.) 10-2-80

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME Jerome D. Oskvane 2. TITLE GEOCHEMIST, TEAM LEADER  
3. ORGANIZATION 4. TELEPHONE NO. (area code & no.) 312-663-9415

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
<u>ARON WEAVER</u>	<u>ELDRIDGE &amp; ENVIRONMENT, INC</u>	<u>312-663-9415</u>
<u>APRIL WEAVER</u>	<u>"</u>	<u>"</u>

C. SITE REPRESENTATIVES INTERVIEWED (corporate officials, workers, residents)

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
<u>WILLIAM WHITEMAN</u>	<u>ENGINEER</u>	<u>(SAME AS ABOVE)</u>

## III. INSPECTION INFORMATION (continued)

## D. GENERATOR INFORMATION (sources of waste)

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE GENERATED
ZIRCON	SAME AS SECTION I		CALCIUM SILICATE SLUDGE

## E. TRANSPORTER/HAULER INFORMATION

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED

## F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.

1. NAME	2. TELEPHONE NO.	3. ADDRESS
GREENWILLOW LANDFILL		

## G. DATE OF INSPECTION

(mo., day, &amp; yr.)

10-2-80

## H. TIME OF INSPECTION

1300

## I. ACCESS GAINED BY: (credentials must be shown in all cases)



1. PERMISSION



2. WARRANT

## J. WEATHER (describe)

CLEAR &amp; IN 60'S

## IV. SAMPLING INFORMATION

A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.

1. SAMPLE TYPE	2. SAMPLE TAKEN (mark 'X')	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
a. GROUNDWATER			
b. SURFACE WATER			
c. WASTE			
d. AIR			
e. RUNOFF			
f. SPILL			
g. SOIL			
h. VEGETATION			
i. OTHER (specify)			

## B. FIELD MEASUREMENTS TAKEN (e.g., radioactivity, explosivity, PH, etc.)

1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS

## IV. SAMPLING INFORMATION (continued)

## C. PHOTOS

1. TYPE OF PHOTOS

☒ a. GROUND ☐ b. AERIAL

2. PHOTOS IN CUSTODY OF:

FILE

## D. SITE MAPPED?

☒ YES. SPECIFY LOCATION OF MAPS:

SKETCH MAP

## E. COORDINATES

1. LATITUDE (deg.-min.-sec.)

2. LONGITUDE (deg.-min.-sec.)

## V. SITE INFORMATION

## A. SITE STATUS

☒ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)☐ 2. INACTIVE (Those sites which no longer receive wastes.)☐ 3. OTHER (specify):  
(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

## B. IS GENERATOR ON SITE?

☐ 1. NO☒ 2. YES (specify generator's four-digit SIC Code):

## C. AREA OF SITE (in acres)

2.7 ACRES

## D. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO☒ 2. YES (specify): FACTORY

## VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

'X'	A. TRANSPORTER	'X'	B. STORER	'X'	C. TREATER	'X'	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP	<input checked="" type="checkbox"/>	2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS	<input checked="" type="checkbox"/>	3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK	<input checked="" type="checkbox"/>	4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (specify):
					9. OTHER (specify):		

E. SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this for..

☐ 1. STORAGE
 ☐ 2. INCINERATION
 ☐ 3. LANDFILL
 ☒ 4. SURFACE IMPOUNDMENT
 ☐ 5. DEEP WELL

☐ 6. CHEM/BIO/PHYS TREATMENT
 ☐ 7. LANDFARM
 ☐ 8. OPEN DUMP
 ☐ 9. TRANSPORTER
 ☐ 10. RECYCLOR/RECLAIMER

## VII. WASTE RELATED INFORMATION

## A. WASTE TYPE

☐ 1. LIQUID☐ 2. SOLID☒ 3. SLUDGE☐ 4. GAS

## B. WASTE CHARACTERISTICS

☐ 1. CORROSIVE☐ 2. IGNITABLE☐ 3. RADIOACTIVE☐ 4. HIGHLY VOLATILE☐ 5. TOXIC☐ 6. REACTIVE☒ 7. INERT☐ 8. FLAMMABLE☐ 9. OTHER (specify):

## C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

AVAILABLE FROM COMPANY

[illegible]☐ A. HUMAN HEALTH HAZARDS

## VIII. HAZARD DESCRIPTION (continued)

☐ B. NON-WORKER INJURY/EXPOSURE☐ C. WORKER INJURY/EXPOSURE☒ D. CONTAMINATION OF WATER SUPPLY☐ E. CONTAMINATION OF FOOD CHAIN☐ F. CONTAMINATION OF GROUND WATER☒ G. CONTAMINATION OF SURFACE WATER

IF ACID SPILLED IN LAGOON, AND WAS NEUTRALIZED IN POND  
FLUORIDE CONTENT OF POND MAY BE ABOVE NPDES

## VIII. HAZARD DESCRIPTION (continued)

☐ H. DAMAGE TO FLORA/FAUNA☐ I. FISH KILL☐ J. CONTAMINATION OF AIR☐ K. NOTICEABLE ODORS☒ L. CONTAMINATION OF SOIL

SOME SLUDGE AROUND SAND FILTERS, BUT MATERIAL IS  
INERT

☐ M. PROPERTY DAMAGE



## VIII. HAZARD DESCRIPTION (continued)

☐ N. FIRE OR EXPLOSION☐ O. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUID☐ P. SEWER, STORM DRAIN PROBLEMS☒ Q. EROSION PROBLEMS

SOME EROSION AROUND SETTLING LAGOON

☐ R. INADEQUATE SECURITY☐ S. INCOMPATIBLE WASTES

# VIII. HAZARD DESCRIPTION (continued)

☐ T. MIDNIGHT DUMPING

☐ U. OTHER (specify):

## IX. POPULATION DIRECTLY AFFECTED BY SITE

A. LOCATION OF POPULATION	B. APPROX. NO. OF PEOPLE AFFECTED	C. APPROX. NO. OF PEOPLE AFFECTED WITHIN UNIT AREA	D. APPROX. NO. OF BUILDINGS AFFECTED	E. DISTANCE TO SITE (specify units)
1. IN RESIDENTIAL AREAS				
2. IN COMMERCIAL OR INDUSTRIAL AREAS				
3. IN PUBLICLY TRAVELLED AREAS				
4. PUBLIC USE AREAS (parks, schools, etc.)				

## X. WATER AND HYDROLOGICAL DATA

A. DEPTH TO GROUNDWATER (specify unit)	B. DIRECTION OF FLOW	C. GROUNDWATER USE IN VICINITY
D. POTENTIAL YIELD OF AQUIFER	E. DISTANCE TO DRINKING WATER SUPPLY (specify unit of measure)	F. DIRECTION TO DRINKING WATER SUPPLY
G. TYPE OF DRINKING WATER SUPPLY		
<input type="checkbox"/> 1. NON-COMMUNITY < 15 CONNECTIONS* <input type="checkbox"/> 2. COMMUNITY (specify town): _____ > 15 CONNECTIONS		
<input type="checkbox"/> 3. SURFACE WATER <input type="checkbox"/> 4. WELL		

**X. WATER AND HYDROLOGICAL DATA (continued)****H. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE**

1. WELL	2. DEPTH (specify unit)	3. LOCATION (proximity to population/buildings)	4. NON-COM- MUNITY (mark 'X')	5. COMMUN- ITY (mark 'X')

**I. RECEIVING WATER**

1. NAME MAN MADE DITCH ☒ 2. SEWERS ☐ 3. STREAMS/RIVERS  
☐ 4. LAKES/RESERVOIRS ☐ 5. OTHER (specify): \_\_\_\_\_

**6. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS****XI. SOIL AND VEGETATION DATA****LOCATION OF SITE IS IN:**

- ☐ A. KNOWN FAULT ZONE ☐ B. KARST ZONE ☐ C. 100 YEAR FLOOD PLAIN ☐ D. WETLAND  
☐ E. A REGULATED FLOODWAY ☐ F. CRITICAL HABITAT ☐ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

**XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED**

Mark 'X' to indicate the type(s) of geological material observed and specify where necessary, the component parts.

'X'	A. COVERED BURDEN	'X'	B. BEDROCK (specify below)	'X'	C. OTHER (specify below)
X	1. SAND				
X	2. CLAY				
	3. GRAVEL				

**XIII. SOIL PERMEABILITY**

- ☐ A. UNKNOWN ☐ B. VERY HIGH (100,000 to 1000 cm/sec.) ☐ C. HIGH (1000 to 10 cm/sec.)  
☐ D. MODERATE (10 to .1 cm/sec.) ☐ E. LOW (.1 to .001 cm/sec.) ☐ F. VERY LOW (.001 to .00001 cm/sec.)

**G. RECHARGE AREA**

- ☐ 1. YES ☐ 2. NO 3. COMMENTS: \_\_\_\_\_

**H. DISCHARGE AREA**

- ☐ 1. YES ☐ 2. NO 3. COMMENTS: \_\_\_\_\_

**I. SLOPE**

1. ESTIMATE % OF SLOPE 2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.

**J. OTHER GEOLOGICAL DATA**

## XIV. PERMIT INFORMATION

List all applicable permits held by the site and provide the related information.

A. PERMIT TYPE (e.g., RCRA, State, NPDES, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (mo., day, & yr.)	E. EXPIRATION DATE (mo., day, & yr.)	F. IN COMPLIANCE (mark 'X')		
					1. YES	2. NO	3. UN- KNOWN
NPDES		OH 0000591					
OEPA		E314CD					

## XV. PAST REGULATORY OR ENFORCEMENT ACTIONS

☐ NONE      ☐ YES (summarize in this space)

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition (Section II) information on the first page of this form.

# **SURFACE IMPOUNDMENTS SITE INSPECTION REPORT** (Supplemental Report)

**INSTRUCTION**  
Answer and Explain  
as Necessary.

**1. TYPE OF IMPOUNDMENT**

1- settling pond for solids 1- filtering pond

**2. STABILITY/CONDITION OF EMBANKMENTS**

both ponds have grassed over banks

**3. EVIDENCE OF SITE INSTABILITY (Erosion, Settling, Sink Holes, etc.)**

☒ YES ☐ NO some erosion in settling pond, filter bed being dried out

**4. EVIDENCE OF DISPOSAL OF IGNITABLE OR REACTIVE WASTE**

☐ YES ☒ NO

**5. ONLY COMPATIBLE WASTES ARE STORED OR DISPOSED OF IN THE IMPOUNDMENT**

☒ YES ☐ NO

**6. RECORDS CHECKED FOR CONTENTS AND LOCATION OF EACH SURFACE IMPOUNDMENT**

☒ YES ☐ NO

**7. IMPOUNDMENT HAS LINER SYSTEM**

☐ YES ☒ NO

**7a. INTEGRITY OF LINER SYSTEM CHECKED**

☐ YES ☐ NO

has none

**7b. FINDINGS****8. SOIL STRUCTURE AND SUBSTRUCTURE****9. MONITORING WELLS**

☐ YES ☒ NO

**10. LENGTH, WIDTH, AND DEPTH**

LENGTH

WIDTH

DEPTH

**11. CALCULATED VOLUMETRIC CAPACITY****12. PERCENT OF CAPACITY REMAINING**

pond was full

**13. ESTIMATE FREEBOARD**

none - grassed over banks, adjacent drained ditch

**14. SOLIDS DEPOSITION**

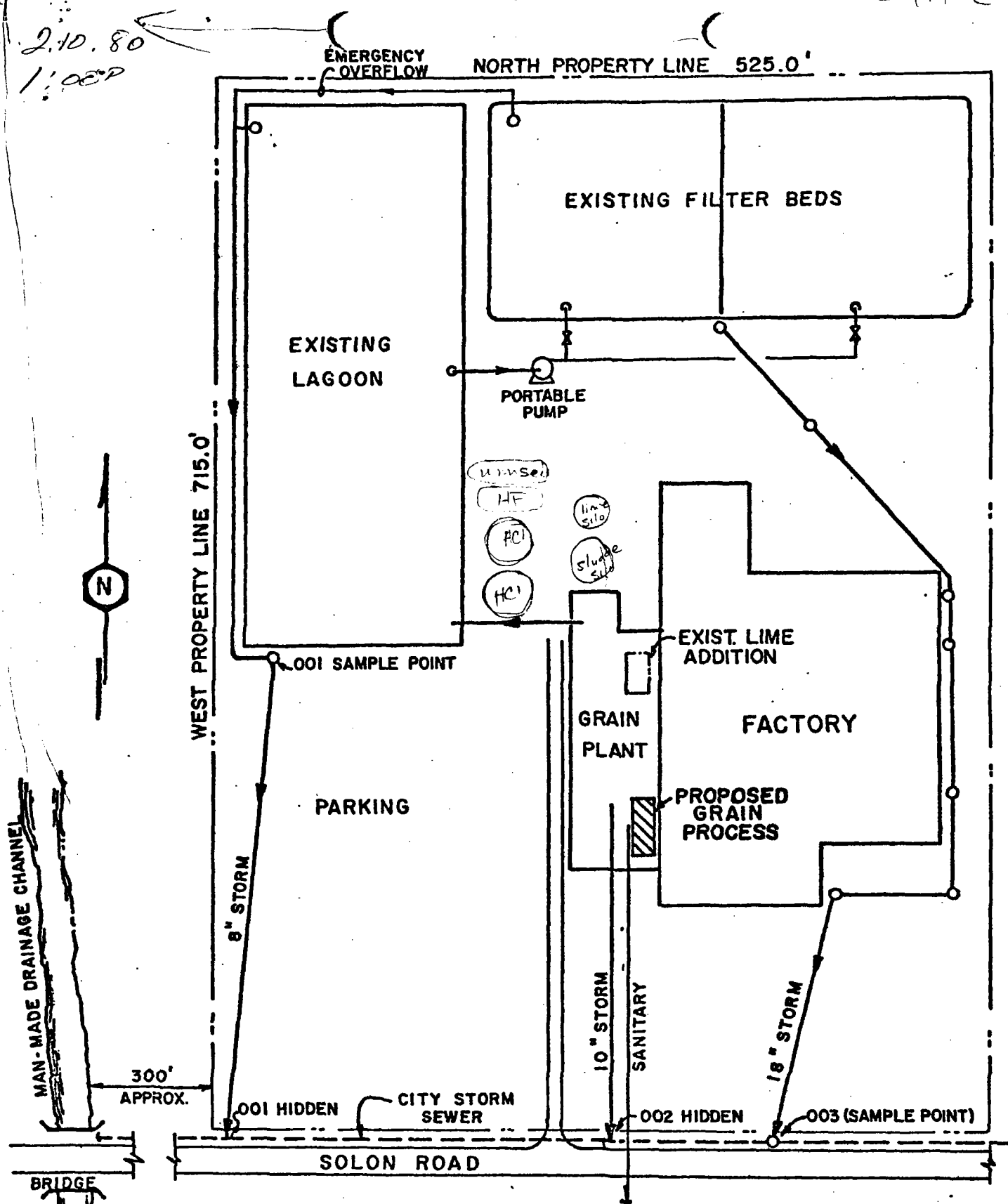
☒ YES ☐ NO

settling for solid wastes

**15. DREDGING DISPOSAL METHOD**

dry beds out remove residue to landfill

**16. OTHER EQUIPMENT**



## NOTES:

- (1) APPROX. U.S.G.S. ELEV. 1050 FT.  
 (2) INDUSTRIAL ZONE ALL AROUND PLANT

0 100' 200'

FIGURE 2

BUILDING AND PROPERTY PLAN  
 ZIRCOA - SOLON, OHIO

Zircoa

1066

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoa

Comments: Photograph taken

toward the north  
storage tanks  
and settling pond



Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoa

Comments: Photograph taken

toward the northwest  
settling pond  
outflow channel  
from plant





Zircoa

2 of 6

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:  
April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoa

Comments: Photograph taken  
toward the N/northeast  
extent of  
settling pond



Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:  
April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoa

Comments: Photograph taken  
toward the north  
drainage ditch  
of pond





Zircoc.

3 of 6

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoc.

Comments: Photograph taken

toward the east

outflow drain

for pond



Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon, Zircoc.

Comments: Photograph taken

toward the southeast

plant from edge

of pond





Zircoa .

4 of 6

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon , Zircoa

Comments: Photograph taken

toward the W/southwest  
erosion on  
pond edge



Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon , Zircoa

Comments: Photograph taken

toward the E/southeast  
#1 filter bed  
serves settling pond





Zircos

5 of 6

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon 1 Zircos

Comments: Photograph taken

toward the southeast

#1 filter bed emptied  
for maintenance



Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon 1 Zircos

Comments: Photograph taken

toward the E/Southeast

#2 sand filter bed  
emptied for maintenance





Zircoa

6 of 6

Date: 10-2-80

Time: 1-2 A.M. P.M.

Photograph By:

April Richards

TDD# 8009-5

State- Ohio

Solon 1 Zircoa

Comments: Photograph taken

toward the S/Southeast

#2 filter bed empty  
sludge material



Date: \_\_\_\_\_

Time: \_\_\_\_\_ A.M. P.M.

Photograph By: \_\_\_\_\_

TDD# \_\_\_\_\_

State- \_\_\_\_\_

/

Comments: Photograph taken

toward the \_\_\_\_\_